

Data Validation Checklist
Semivolatile Organic Analyses

Project: 35TH Avenue Superfund Site
 Laboratory: TestAmerica – Savannah, GA
 Method: SW-846 8270D Low-Level (PAH)
 Matrix: Soil
 Reviewer: Karen M Trujillo, URS Group, Inc.
 Concurrence¹: Martha Meyers-Lee, URS Group, Inc.

Project No: 60430028; 1
 Job ID.: 680-106803-2
 Associated Samples: Refer to Attachment A (Sample Summary)
 Samples Collected: 10/28/2014 & 10/29/2015
 Date: 08/17/2015
 Date: 08/21/2015

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
1. Were sample storage and preservation requirements met? If temperature >6°C, then J/UJ flag results.	✓				
2. Were all COC records signed and integrity seals intact, indicating that COC was maintained for all samples?	✓				
3. Were there any problems noted in laboratory data package concerning condition of samples upon receipt?		✓			
4. Do any soil samples contain more than 50% water? If yes, then results are to be reported on a wet-weight basis.		✓			
5. Were holding times met (\leq 7 and 14 days from collection to extraction for aqueous and solid samples, respectively; \leq 40 days from extraction to analysis)? If not, then J/UJ flag sample results. If grossly (2x) exceeded, then flag J/R.	✓				
6. Were results for all project-specified target analytes reported?	✓				
7. Were project-specified Reporting Limits achieved for undiluted sample analyses?	✓				
8. Were samples with analyte concentrations exceeding the calibration range of the instrument re-analyzed at a higher dilution? If not, then J flag sample result.	✓				
9. Was a method blank extracted with each batch (i.e., one per 20 samples, per batch, per matrix and per level)?	✓				
10. Were target analytes detected in the method blank?		✓			
11. Are equipment/rinsate blanks associated with every sample? If no, note in DV report.		✓		According to the QAPP, a rinsate blank is to be collected after each decontamination event, which occurs once per week per the client. A rinsate blank is not associated with this sampling event. Blank contamination will be evaluated based on method blank results.	

¹ Independent technical reviewer

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
12. Were target analytes detected in equipment/rinsate blanks?			✓		
13. Were analytes detected in samples below the blank contamination action level? If yes, U flag positive sample results <5x associated blank concentration (10x for common blank contaminants—phthalates)			✓	Blank contamination does not exist.	
14. Is a field duplicate associated with this Job?	✓			CV0971O-CSD18" (680-106803-35) is a field duplicate of sample CV0971O-CS18" (680-106803-33).	
15. Was precision deemed acceptable as defined by the project plans?	✓			Refer to Attachment B (Field Duplicate Evaluation)	
16. Were DFTPP ion abundance criteria (i.e., Table 3 of SW-846 8270D) met? If no, professional judgment may be applied to determine to what extent the data may be utilized.	✓			Alternate tuning criteria were used by the laboratory (i.e., EPA Method 525.2). All ion abundance criteria were met per EPA Method 525.2.	
17. Were samples analyzed within 12 hours of the DFTPP tune? If no, professional judgment may be applied to determine to what extent the data may be utilized.	✓				
18. Were initial and continuing calibration standards analyzed at the proper frequency for each instrument? <ul style="list-style-type: none"> • Ensure that a minimum of five standards are used for the initial calibration. If no, use professional judgment to determine the effect on the data and note in the reviewer narrative. • An initial calibration is to be associated with each sample analysis. • A continuing calibration standard is to be analyzed for every 12 hours of sample analysis per instrument. 	✓			<ul style="list-style-type: none"> • Instrument ID: CMSK • Initial Calibration: 10/22/2014 • ICV: 10/22/2014 @ 16:40 • CCV: 11/04/2014 @ 14:53 • Instrument ID: CMSK • Initial Calibration: 11/08/2014 • ICV: 11/08/2014 @ 15:14 • Instrument ID: CMSY • Initial Calibration: 11/10/2014 • ICV: 11/10/2014 @ 17:40 	
19. Were calibration results within laboratory/project specifications? <ul style="list-style-type: none"> • ICAL (Criteria: ≤ 20 mean %RSD ($\leq 50\%$ for poor performers), OR $r \geq 0.995$, OR $r^2 \geq 0.99$, and RRF ≥ 0.050 (≥ 0.010 for poor performers)): <ul style="list-style-type: none"> ◦ If %RSD>20 ($>50\%$ for poor performers), or $r < 0.995$, or $r^2 < 0.995$, then J flag positive results and UJ flag non-detects ◦ If mean RRF <0.050 (<0.010 for poor performers), then J flag positive results and R flag non-detects (unless the lab analyzed a detectability check standard) • ICV and CCV (ICV Criteria: $\leq \pm 30\%$D; CCV Criteria: $\leq \pm 20\%$D ($\leq 50\%$ for poor performers) and RF ≥ 0.050 (≥ 0.010 for poor performers)): <ul style="list-style-type: none"> ◦ If %D> Control Limit ($>50\%$ for poor performers), then J flag positive results and UJ flag non-detects ◦ If RF <0.050 (<0.010 for poor performers), then UJ flag non-detected semivolatile target compounds 		✓	CCV: 11/04/2014 @ 14:53 (CCVIS 356860/2), instrument CMSK: <ul style="list-style-type: none"> • Benzo[g,h,i]perylene @ -23.1%D (Lab/Project: ≤ 20) • Pyrene @ -25.4%D (Lab/Project: ≤ 20) Negative bias is indicated by the CCV percent differences; therefore, J and UJ-Flag all positive and non-detect pyrene and benzo[g,h,i]perylene results in the following associated samples: <ul style="list-style-type: none"> • 680-106803-21 (CV0971AD-GS18") • 680-106803-23 (CV0971SS-CS6") • 680-106803-25 (CV0971SS-CS18") 	J/UJ	

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
20. Was a LCS prepared for each batch and matrix?	✓				
21. Were LCS recoveries within lab control limits? If no, J flag positive results when %R >Upper Control Limit (UCL) and J/R flag results when %R <Lower Control Limit (LCL).	✓				
22. Were LCS/LCSD RPD within lab specifications? If no, J flag positive results and UJ flag non-detects	✓				
23. Was a MS/MSD pair extracted at the proper frequency (one per 20 samples per batch)?	✓				
24. Is the MS/MSD parent sample a project-specific sample?	✓			Batch 356473: <ul style="list-style-type: none"> • 680-106803-25 (CV0971SS-CS18"), MS/MSD • 680-106803-30 (CV0971TT-CS24"), MS/MSD 	
25. For all analytes with native sample concentrations < 4 x spiking level, were MS and MSD recoveries within laboratory/project specifications? <i>Only QC results for project samples that are reported under this Job ID are evaluated.</i> <ul style="list-style-type: none"> • If the native sample concentration >4x spiking level, then an evaluation of interference is not possible. • If either MS or MSD recovery meets control limits, qualification of data is not warranted. • MS and MSD %R<10: J and R Flag positive and ND results, respectively • MS and MSD %R>10 and <LCL: J Flag positive and UJ flag non-detect results • MS and MSD R% >UCL (or 140): J Flag positive results 		✓		<ul style="list-style-type: none"> • 680-106803-25 (CV0971SS-CS18"): Indeno[1,2,3-cd]pyrene MS and MSD @21 and 16 %R (Lab/Project: 35-148). UJ-Flag sample result • 680-106803-30 (CV0971TT-CS24"): <ul style="list-style-type: none"> ○ Acenaphthene MS and MSD @69 and 142 %R (33-130). Qualification of data not required². ○ Anthracene MS and MSD @73 and 214 %R (42-146). Qualification of data not required². ○ Benzo[a]anthracene MS and MSD @37 and 338 %R (39-157). J-flag ○ Benzo[a]pyrene MS and MSD @32 and 220 %R (41-158). J-flag ○ Benzo[b]fluoranthene MS and MSD @13 and 340 %R (35-152). J-flag ○ Benzo[k]fluoranthene MS and MSD @63 and 172 %R (38-148). Qualification of data not required². ○ Chrysene MS and MSD @30 and 328 %R (35-148). J-flag ○ Fluoranthene @53 and 934 %R (38-147). Qualification of data not required². ○ Fluorene @74 and 190 %R (36-138). Qualification of data not required². ○ Naphthalene MS and MSD @61 and 148 %R (33-130). Qualification of data not required². ○ Phenanthrene MS and MSD @102 and 1073 %R (40-135). Qualification of data not required². ○ Pyrene MS and MSD @32 and 652 %R (38-145). J-flag 	J/UJ

² The recovery of either the MS or MSD met control limits.

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
26. For all analytes with native sample concentrations < 4 x spiking level, were laboratory criteria met for precision during the MS and MSD analyses? <i>Only QC results for project samples that are reported under this Job ID are evaluated.</i> <ul style="list-style-type: none"> • If the native sample concentration > 4x spiking level, then an evaluation of interference is not possible. • If %RPD > UCL, J flag positive result and UJ flag non-detect result 		✓		680-106803-30 (CV0971TT-CS24''): <ul style="list-style-type: none"> • Acenaphthene %RPD @69 (\leq50). UJ-Flag • Anthracene %RPD @88 (\leq50). J-Flag • Benzo[a]anthracene %RPD @95 (\leq50). J-Flag • Benzo[a]pyrene %RPD @73 (\leq50). J-Flag • Benzo[b]fluoranthene %RPD @85 (\leq50). J-Flag • Benzo[k]fluoranthene %RPD @52 (\leq50). J-Flag • Chrysene %RPD @86 (\leq50). J-Flag • Fluoranthene %RPD @124 (\leq50). J-Flag • Fluorene %RPD @88 (\leq50). UJ-Flag • Indeno[1,2,3-cd]pyrene %RPD @57 (\leq50). J-Flag • Naphthalene %RPD @70 (\leq50). J-Flag • Phenanthrene %RPD @143 (\leq50). J-Flag • Pyrene %RPD @113 (\leq50). J-Flag 	J/UJ
27. Were surrogate recoveries within lab/project specifications? <ul style="list-style-type: none"> • If %R for 1 Acid or BN surrogates <10, then J flag positive and R flag non-detect associated sample results (i.e., acid or BN results) • If 2 or more Acid or BN %R >UCL, then J flag positive associated sample results (i.e., acid or BN results) • If 2 or more Acid or BN %R \geq10%, but <LCL, then J flag positive and UJ flag non-detect associated sample results (i.e., acid or BN results) • If 2 or more Acid or BN , with 1 %R >UCL and 1 %R \geq10%, but <LCL, then J flag positive and UJ flag non-detect associated sample results (i.e., acid or BN results) 		✓		Surrogate o-terphenyl was not recovered (0%) during the diluted analysis of samples 680-106803-23, and -26 through -40. Qualification of sample results is not warranted, as the surrogate compound was diluted out of the samples.	
28. Were internal standard (IS) results within lab/project specifications? <ul style="list-style-type: none"> • If IS area counts are less than 50% of the midpoint calibration standard, then J flag positive and UJ flag non-detect associated sample results • If IS area counts are greater than 100% of the midpoint calibration standard, then J flag positive results • If extremely low area counts are reported or performance exhibits a major abrupt drop-off, then a severe loss of sensitivity is indicated, J flag positive and R flag non-detect results • If retention time of sample's internal standard is not within 30 seconds of the associated calibration standard, R flag associated data. • The chromatographic profile for that sample must be examined to determine if any false positives or negatives exists. For shifts of large magnitude, the reviewer may consider partial or total 	✓				

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
rejection of the data for that sample fraction. Positive results need not be qualified as R, if mass spectral criteria are met.					
29. Were lab comments included in report?	✓			Refer to Attachment C (Case Narrative)	
Comments: The data validation was conducted in accordance with the <i>Non-Industrial Use Property Sampling Event QAPP for the 35th Avenue Removal Site, Birmingham, Alabama, Revision 1</i> (OTIE, October 2012). The data review process was modeled after the <i>USEPA Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Organic Methods Data Review</i> (EPA, October 1999) and <i>USEPA CLP NFG for Low Concentration Organic Methods Data Review</i> (EPA, June 2001). Sample results have been qualified based on the results of the data review process (Attachment D). Criteria for acceptability of data were based upon available site information, analytical method requirements, guidance documents, and professional judgment.					

DV Flag Definitions:

- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
 R The sample results are unusable. The analyte may or may not be present in the sample.
 U The analyte was analyzed for, but was not detected above the associated level; blank contamination may exist.
 UJ The analyte was not detected above the limit, and the limit is approximate and may be inaccurate or imprecise.

ATTACHMENT A
SAMPLE SUMMARY

SAMPLE SUMMARY

Client: Oneida Total Integrated Enterprises LLC

Job Number: 680-106803-2
Sdg Number: 680-106803-02

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-106803-21	CV0971AD-GS18"	Solid	10/28/2014 1310	10/31/2014 0934
680-106803-22	CV0971AD-GS24"	Solid	10/28/2014 1320	10/31/2014 0934
680-106803-23	CV0971SS-CS6"	Solid	10/28/2014 1345	10/31/2014 0934
680-106803-24	CV0971SS-CS12"	Solid	10/28/2014 1400	10/31/2014 0934
680-106803-25	CV0971SS-CS18"	Solid	10/28/2014 1415	10/31/2014 0934
680-106803-25MS	CV0971SS-CS18"	Solid	10/28/2014 1415	10/31/2014 0934
680-106803-25MSD	CV0971SS-CS18"	Solid	10/28/2014 1415	10/31/2014 0934
680-106803-26	CV0971SS-CS24"	Solid	10/28/2014 1430	10/31/2014 0934
680-106803-27	CV0971TT-CS6"	Solid	10/28/2014 1440	10/31/2014 0934
680-106803-28	CV0971TT-CS12"	Solid	10/28/2014 1455	10/31/2014 0934
680-106803-29	CV0971TT-CS18"	Solid	10/28/2014 1510	10/31/2014 0934
680-106803-30	CV0971TT-CS24"	Solid	10/28/2014 1525	10/31/2014 0934
680-106803-30MS	CV0971TT-CS24"	Solid	10/28/2014 1525	10/31/2014 0934
680-106803-30MSD	CV0971TT-CS24"	Solid	10/28/2014 1525	10/31/2014 0934
680-106803-31	CV0971O-CS6"	Solid	10/29/2014 1115	10/31/2014 0934
680-106803-32	CV0971O-CS12"	Solid	10/29/2014 1130	10/31/2014 0934
680-106803-33	CV0971O-CS18"	Solid	10/29/2014 1145	10/31/2014 0934
680-106803-34	CV0971O-CS24"	Solid	10/29/2014 1200	10/31/2014 0934
680-106803-35	CV0971O-CSD18"	Solid	10/29/2014 1150	10/31/2014 0934
680-106803-36	CV0971P-CS6"	Solid	10/29/2014 1410	10/31/2014 0934
680-106803-37	CV0971P-CS12"	Solid	10/29/2014 1420	10/31/2014 0934
680-106803-38	CV0971P-CS18"	Solid	10/29/2014 1515	10/31/2014 0934
680-106803-39	CV0971P-CS24"	Solid	10/29/2014 1530	10/31/2014 0934
680-106803-40	CV0971AI-GS6"	Solid	10/29/2014 1435	10/31/2014 0934

ATTACHMENT B

FIELD DUPLICATE EVALUATION

Evaluation of Field Duplicate Results

Attachment B

Analyte	CV0971O-CS18" 680-106803-33	RL	CV0971O-CSD18" 680-106803-35	RL	Unit	Avg. RLx5	RPD	Absolute difference	2x Avg RL	Action		
Benzo(a)pyrene	56	J	160	70	J	150	µg/kg	775	NA	14	310	None, absolute difference \leq 2x Avg RL
Benzo(b)fluoranthene	89	J	160	100	J	150	µg/kg	775	NA	11	310	None, absolute difference \leq 2x Avg RL
Benzo(k)fluoranthene		U	160	63	J	150	µg/kg	775	NA	63	310	None, absolute difference \leq 2x Avg RL

Note: If the analyte was not detected, then the cell was left blank.

µg/kg - micrograms per kilogram

J - Estimated value

NA - Not applicable

RL - Reporting limit

RPD - Relative percent difference

UJ - Not detected and the limit is estimated

Precision is based on either the absolute difference between sample results or RPD. If the sample results are less than or equal to 5x's the RL, then precision is based on the absolute difference between duplicate results. If sample results >5x's RL, then precision is evaluated using RPD. J-Flag sample results whenever the absolute difference is greater than the RL (2x for soils) or the RPD >20% (50% for soil). Table above presents the results for detected analytes only.

ATTACHMENT C
CASE NARRATIVE

CASE NARRATIVE
Client: Oneida Total Integrated Enterprises LLC
Project: 35th Avenue Superfund Site
Report Number: 680-106803-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

No additional analytical or quality issues were noted, other than those described below or in the Definitions/Glossary page.

RECEIPT

The samples were received on 10/31/2014 9:34 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.6° C, 4.2° C and 4.4° C.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) LOW LEVEL PAH

Samples CV0971AD-GS18" (680-106803-21), CV0971AD-GS24" (680-106803-22), CV0971SS-CS6" (680-106803-23), CV0971SS-CS12" (680-106803-24), CV0971SS-CS18" (680-106803-25), CV0971SS-CS24" (680-106803-26), CV0971TT-CS6" (680-106803-27), CV0971TT-CS12" (680-106803-28), CV0971TT-CS18" (680-106803-29), CV0971TT-CS24" (680-106803-30), CV0971O-CS6" (680-106803-31), CV0971O-CS12" (680-106803-32), CV0971O-CS18" (680-106803-33), CV0971O-CS24" (680-106803-34), CV0971O-CSD18" (680-106803-35), CV0971P-CS6" (680-106803-36), CV0971P-CS12" (680-106803-37), CV0971P-CS18" (680-106803-38), CV0971P-CS24" (680-106803-39) and CV0971AI-GS6" (680-106803-40) were analyzed for Semivolatile Organic Compounds (GC/MS) Low level PAH in accordance with EPA SW846 Method 8270D.

Method(s) 8270D_LL_PAH: The following sample(s) was diluted due to the nature of the sample matrix: CV0971SS-CS6" (680-106803-23), CV0971AI-GS6" (680-106803-40), CV0971O-CS12" (680-106803-32), CV0971O-CS18" (680-106803-33), CV0971O-CS24" (680-106803-34), CV0971O-CS6" (680-106803-31), CV0971P-CS12" (680-106803-37), CV0971P-CS18" (680-106803-38), CV0971P-CS24" (680-106803-39), CV0971P-CS6" (680-106803-36), CV0971SS-CS24" (680-106803-26), CV0971TT-CS6" (680-106803-27), CV0971TT-CS18" (680-106803-29), CV0971O-CSD18" (680-106803-35), CV0971TT-CS12" (680-106803-28), CV0971TT-CS24" (680-106803-30). Because of this dilution, the surrogate spikes are not reported.

Method(s) 8270D_LL_PAH: The following sample(s) was diluted due to the nature of the sample matrix: CV0971TT-CS24" (680-106803-30 MS), CV0971TT-CS24" (680-106803-30 MSD). As such, surrogate and MS/MSD spike recoveries were diluted out and are not reported.

Method(s) 8270D_LL_PAH: The continuing calibration verification (CCV) analyzed in batch 356860 was outside the method criteria for the following analyte(s): Benzo[g,h,i]perylene, o-terphenyl, and Pyrene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method(s) 8270D_LL_PAH: Manual integration was performed on the following sample(s): CV0971AI-GS6" (680-106803-40), CV0971O-CS12" (680-106803-32), CV0971O-CS18" (680-106803-33), CV0971O-CS24" (680-106803-34), CV0971O-CS6" (680-106803-31), CV0971P-CS18" (680-106803-38), CV0971P-CS24" (680-106803-39), CV0971P-CS6" (680-106803-36), CV0971SS-CS24" (680-106803-26), CV0971TT-CS6" (680-106803-27), CV0971TT-CS18" (680-106803-29).

Indeno[1,2,3-cd]pyrene recovery is outside criteria low for the MS and MSD of sample CV0971SS-CS18" (680-106803-25) in batch 680-356860.

Several analytes have recovery outside criteria for the MS and/or MSD of sample CV0971TT-CS24" (680-106803-30) in batch 680-357632. Several analytes exceeded the RPD limit.

Refer to the QC report for details.

METALS (ICP)

Samples CV0971AD-GS18" (680-106803-21), CV0971AD-GS24" (680-106803-22), CV0971SS-CS6" (680-106803-23), CV0971SS-CS12" (680-106803-24), CV0971SS-CS18" (680-106803-25), CV0971SS-CS24" (680-106803-26), CV0971TT-CS6" (680-106803-27), CV0971TT-CS12" (680-106803-28), CV0971TT-CS18" (680-106803-29), CV0971TT-CS24" (680-106803-30), CV0971O-CS6" (680-106803-31), CV0971O-CS12" (680-106803-32), CV0971O-CS18" (680-106803-33), CV0971O-CS24" (680-106803-34), CV0971O-CSD18" (680-106803-35), CV0971P-CS6" (680-106803-36), CV0971P-CS12" (680-106803-37), CV0971P-CS18" (680-106803-38), CV0971P-CS24" (680-106803-39) and CV0971AI-GS6" (680-106803-40) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C.

Iron recovery is outside criteria low for the MS and MSD of sample CV0971SS-CS18" (680-106803-25) in batch 680-357015. Aluminum failed the recovery criteria high.

Some metals have recoveries outside criteria for the MS and/or MSD precision and accuracy of sample CV0971TT-CS24" (680-106803-30) in batch 680-357015. Refer to the QC report for details.

PERCENT SOLIDS/MOISTURE

Samples CV0971AD-GS18" (680-106803-21), CV0971AD-GS24" (680-106803-22), CV0971SS-CS6" (680-106803-23), CV0971SS-CS12" (680-106803-24), CV0971SS-CS18" (680-106803-25), CV0971SS-CS24" (680-106803-26), CV0971TT-CS6" (680-106803-27), CV0971TT-CS12" (680-106803-28), CV097TT-CS18" (680-106803-29), CV0971TT-CS24" (680-106803-30), CV0971O-CS6" (680-106803-31), CV0971O-CS12" (680-106803-32), CV0971O-CS18" (680-106803-33), CV0971O-CS24" (680-106803-34), CV0971O-CSD18" (680-106803-35), CV0971P-CS6" (680-106803-36), CV0971P-CS12" (680-106803-37), CV0971P-CS18" (680-106803-38), CV0971P-CS24" (680-106803-39) and CV0971AI-GS6" (680-106803-40) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP.

ATTACHMENT D
QUALIFIED SAMPLE RESULTS

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-2

SDG No.: 680-106803-02

Client Sample ID: CV0971AD-GS18"

Lab Sample ID: 680-106803-21

Matrix: Solid

Lab File ID: 1KK0414.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 13:10

Extract. Method: 3546

Date Extracted: 11/01/2014 13:48

Sample wt/vol: 30.01(g)

Date Analyzed: 11/04/2014 19:27

Con. Extract Vol.: 1(mL)

Dilution Factor: 1

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 18.8

GPC Cleanup:(Y/N) N

Analysis Batch No.: 356860

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.2	U	8.2	4.1
208-96-8	Acenaphthylene	8.2	U	8.2	4.1
120-12-7	Anthracene	8.2	U	8.2	4.1
56-55-3	Benzo[a]anthracene	8.2	U	8.2	4.1
50-32-8	Benzo[a]pyrene	3.3	J	8.2	1.5
205-99-2	Benzo[b]fluoranthene	7.2	J	8.2	4.1
191-24-2	Benzo[g,h,i]perylene	8.2	✓ UJ	8.2	4.1
207-08-9	Benzo[k]fluoranthene	8.2	U	8.2	2.5
218-01-9	Chrysene	4.7	J	8.2	4.1
53-70-3	Dibenz(a,h)anthracene	8.2	U	8.2	4.1
206-44-0	Fluoranthene	5.7	J	8.2	4.1
86-73-7	Fluorene	8.2	U	8.2	4.1
193-39-5	Indeno[1,2,3-cd]pyrene	8.2	U	8.2	4.1
90-12-0	1-Methylnaphthalene	8.2	U	8.2	3.8
91-57-6	2-Methylnaphthalene	8.2	U	8.2	4.1
91-20-3	Naphthalene	8.2	U	8.2	4.1
85-01-8	Phenanthrene	4.1	J	8.2	3.0
129-00-0	Pyrene	4.3	✓ J	8.2	4.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	44		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-2

SDG No.: 680-106803-02

Client Sample ID: CV0971AD-GS24"

Lab Sample ID: 680-106803-22

Matrix: Solid

Lab File ID: 1KK0817.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 13:20

Extract. Method: 3546

Date Extracted: 11/01/2014 13:48

Sample wt/vol: 30.01(g)

Date Analyzed: 11/08/2014 17:08

Con. Extract Vol.: 1(mL)

Dilution Factor: 1

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 17.9

GPC Cleanup:(Y/N) N

Analysis Batch No.: 357632

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.2	U	8.2	4.0
208-96-8	Acenaphthylene	6.2	J	8.2	4.0
120-12-7	Anthracene	6.6	J	8.2	4.0
56-55-3	Benzo[a]anthracene	52		8.2	4.0
50-32-8	Benzo[a]pyrene	53		8.2	1.5
205-99-2	Benzo[b]fluoranthene	79		8.2	4.0
191-24-2	Benzo[g,h,i]perylene	30		8.2	4.0
207-08-9	Benzo[k]fluoranthene	38		8.2	2.4
218-01-9	Chrysene	56		8.2	4.0
53-70-3	Dibenz(a,h)anthracene	8.9		8.2	4.0
206-44-0	Fluoranthene	72		8.2	4.0
86-73-7	Fluorene	8.2	U	8.2	4.0
193-39-5	Indeno[1,2,3-cd]pyrene	21		8.2	4.0
90-12-0	1-Methylnaphthalene	8.7		8.2	3.8
91-57-6	2-Methylnaphthalene	9.4		8.2	4.0
91-20-3	Naphthalene	7.5	J	8.2	4.0
85-01-8	Phenanthrene	36		8.2	2.9
129-00-0	Pyrene	77		8.2	4.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	69		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-2

SDG No.: 680-106803-02

Client Sample ID: CV0971SS-CS6"

Lab Sample ID: 680-106803-23

Matrix: Solid

Lab File ID: 1KK0416.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 13:45

Extract. Method: 3546

Date Extracted: 11/01/2014 13:48

Sample wt/vol: 30.01(g)

Date Analyzed: 11/04/2014 20:13

Con. Extract Vol.: 1(mL)

Dilution Factor: 10

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 18.1

GPC Cleanup:(Y/N) N

Analysis Batch No.: 356860

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	82	U	82	40
208-96-8	Acenaphthylene	82	U	82	40
120-12-7	Anthracene	82	U	82	40
56-55-3	Benzo[a]anthracene	240		82	40
50-32-8	Benzo[a]pyrene	240		82	15
205-99-2	Benzo[b]fluoranthene	440		82	40
191-24-2	Benzo[g,h,i]perylene	110	J	82	40
207-08-9	Benzo[k]fluoranthene	140		82	24
218-01-9	Chrysene	280		82	40
53-70-3	Dibenz(a,h)anthracene	82	U	82	40
206-44-0	Fluoranthene	430		82	40
86-73-7	Fluorene	82	U	82	40
193-39-5	Indeno[1,2,3-cd]pyrene	45	J	82	40
90-12-0	1-Methylnaphthalene	41	J	82	38
91-57-6	2-Methylnaphthalene	48	J	82	40
91-20-3	Naphthalene	82	U	82	40
85-01-8	Phenanthrene	170		82	29
129-00-0	Pyrene	400	J	82	40

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-2

SDG No.: 680-106803-02

Client Sample ID: CV0971SS-CS12"

Lab Sample ID: 680-106803-24

Matrix: Solid

Lab File ID: 1KK0818.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 14:00

Extract. Method: 3546

Date Extracted: 11/01/2014 13:48

Sample wt/vol: 30.04(g)

Date Analyzed: 11/08/2014 17:31

Con. Extract Vol.: 1(mL)

Dilution Factor: 1

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 19.2

GPC Cleanup:(Y/N) N

Analysis Batch No.: 357632

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.3	U	8.3	4.1
208-96-8	Acenaphthylene	8.3	U	8.3	4.1
120-12-7	Anthracene	8.3	U	8.3	4.1
56-55-3	Benzo[a]anthracene	30		8.3	4.1
50-32-8	Benzo[a]pyrene	36		8.3	1.5
205-99-2	Benzo[b]fluoranthene	56		8.3	4.1
191-24-2	Benzo[g,h,i]perylene	22		8.3	4.1
207-08-9	Benzo[k]fluoranthene	30		8.3	2.5
218-01-9	Chrysene	33		8.3	4.1
53-70-3	Dibenz(a,h)anthracene	14		8.3	4.1
206-44-0	Fluoranthene	30		8.3	4.1
86-73-7	Fluorene	8.3	U	8.3	4.1
193-39-5	Indeno[1,2,3-cd]pyrene	14		8.3	4.1
90-12-0	1-Methylnaphthalene	8.3	U	8.3	3.8
91-57-6	2-Methylnaphthalene	4.7	J	8.3	4.1
91-20-3	Naphthalene	5.2	J	8.3	4.1
85-01-8	Phenanthrene	14		8.3	3.0
129-00-0	Pyrene	36		8.3	4.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	72		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-2

SDG No.: 680-106803-02

Client Sample ID: CV0971SS-CS18"

Lab Sample ID: 680-106803-25

Matrix: Solid

Lab File ID: 1KK0412.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 14:15

Extract. Method: 3546

Date Extracted: 11/01/2014 13:48

Sample wt/vol: 30.02(g)

Date Analyzed: 11/04/2014 18:42

Con. Extract Vol.: 1(mL)

Dilution Factor: 1

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 19.8

GPC Cleanup:(Y/N) N

Analysis Batch No.: 356860

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.3	U	8.3	4.1
208-96-8	Acenaphthylene	8.3	U	8.3	4.1
120-12-7	Anthracene	8.3	U	8.3	4.1
56-55-3	Benzo[a]anthracene	21		8.3	4.1
50-32-8	Benzo[a]pyrene	24		8.3	1.5
205-99-2	Benzo[b]fluoranthene	52		8.3	4.1
191-24-2	Benzo[g,h,i]perylene	9.6	J	8.3	4.1
207-08-9	Benzo[k]fluoranthene	16		8.3	2.5
218-01-9	Chrysene	28		8.3	4.1
53-70-3	Dibenz(a,h)anthracene	8.3	U	8.3	4.1
206-44-0	Fluoranthene	39		8.3	4.1
86-73-7	Fluorene	8.3	U	8.3	4.1
193-39-5	Indeno[1,2,3-cd]pyrene	8.3	UJ	8.3	4.1
90-12-0	1-Methylnaphthalene	5.7	J	8.3	3.9
91-57-6	2-Methylnaphthalene	6.5	J	8.3	4.1
91-20-3	Naphthalene	5.2	J	8.3	4.1
85-01-8	Phenanthrene	17		8.3	3.0
129-00-0	Pyrene	30	J	8.3	4.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	38		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-2

SDG No.: 680-106803-02

Client Sample ID: CV0971SS-CS24"

Lab Sample ID: 680-106803-26

Matrix: Solid

Lab File ID: 3YK1011.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 14:30

Extract. Method: 3546

Date Extracted: 11/01/2014 13:48

Sample wt/vol: 30.04(g)

Date Analyzed: 11/10/2014 18:24

Con. Extract Vol.: 1(mL)

Dilution Factor: 20

Injection Volume: 2(uL)

Level: (low/med) Low

% Moisture: 16.5

GPC Cleanup:(Y/N) N

Analysis Batch No.: 357882

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	160	U	160	79
208-96-8	Acenaphthylene	160	U	160	79
120-12-7	Anthracene	160	U	160	79
56-55-3	Benzo[a]anthracene	280		160	79
50-32-8	Benzo[a]pyrene	200		160	29
205-99-2	Benzo[b]fluoranthene	400		160	79
191-24-2	Benzo[g,h,i]perylene	160		160	79
207-08-9	Benzo[k]fluoranthene	140	J	160	48
218-01-9	Chrysene	360		160	79
53-70-3	Dibenz(a,h)anthracene	160	U	160	79
206-44-0	Fluoranthene	440		160	79
86-73-7	Fluorene	160	U	160	79
193-39-5	Indeno[1,2,3-cd]pyrene	150	J	160	79
90-12-0	1-Methylnaphthalene	160	U	160	74
91-57-6	2-Methylnaphthalene	160	U	160	79
91-20-3	Naphthalene	160	U	160	79
85-01-8	Phenanthrene	150	J	160	57
129-00-0	Pyrene	360		160	79

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah	Job No.: 680-106803-2
SDG No.: 680-106803-02	
Client Sample ID: CV0971TT-CS6"	Lab Sample ID: 680-106803-27
Matrix: Solid	Lab File ID: 3YK1012.D
Analysis Method: 8270D_LL_PAH	Date Collected: 10/28/2014 14:40
Extract. Method: 3546	Date Extracted: 11/01/2014 13:48
Sample wt/vol: 30.01(g)	Date Analyzed: 11/10/2014 18:46
Con. Extract Vol.: 1(mL)	Dilution Factor: 20
Injection Volume: 2(uL)	Level: (low/med) Low
% Moisture: 12.3	GPC Cleanup:(Y/N) N
Analysis Batch No.: 357882	Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	150	U	150	75
208-96-8	Acenaphthylene	150	U	150	75
120-12-7	Anthracene	130	J	150	75
56-55-3	Benzo[a]anthracene	640		150	75
50-32-8	Benzo[a]pyrene	500		150	27
205-99-2	Benzo[b]fluoranthene	720		150	75
191-24-2	Benzo[g,h,i]perylene	330		150	75
207-08-9	Benzo[k]fluoranthene	270		150	46
218-01-9	Chrysene	590		150	75
53-70-3	Dibenz(a,h)anthracene	120	J	150	75
206-44-0	Fluoranthene	1100		150	75
86-73-7	Fluorene	150	U	150	75
193-39-5	Indeno[1,2,3-cd]pyrene	310		150	75
90-12-0	1-Methylnaphthalene	150	U	150	71
91-57-6	2-Methylnaphthalene	150	U	150	75
91-20-3	Naphthalene	150	U	150	75
85-01-8	Phenanthrene	610		150	55
129-00-0	Pyrene	830		150	75

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-2

SDG No.: 680-106803-02

Client Sample ID: CV0971TT-CS12"

Lab Sample ID: 680-106803-28

Matrix: Solid

Lab File ID: 3YK1013.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 14:55

Extract. Method: 3546

Date Extracted: 11/01/2014 13:48

Sample wt/vol: 30.02(g)

Date Analyzed: 11/10/2014 19:09

Con. Extract Vol.: 1(mL)

Dilution Factor: 20

Injection Volume: 2(uL)

Level: (low/med) Low

% Moisture: 12.8

GPC Cleanup:(Y/N) N

Analysis Batch No.: 357882

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	95	J	150	76
208-96-8	Acenaphthylene	150	U	150	76
120-12-7	Anthracene	280		150	76
56-55-3	Benzo[a]anthracene	2100		150	76
50-32-8	Benzo[a]pyrene	1700		150	28
205-99-2	Benzo[b]fluoranthene	2700		150	76
191-24-2	Benzo[g,h,i]perylene	990		150	76
207-08-9	Benzo[k]fluoranthene	1300		150	46
218-01-9	Chrysene	2000		150	76
53-70-3	Dibenz(a,h)anthracene	350		150	76
206-44-0	Fluoranthene	3800		150	76
86-73-7	Fluorene	88	J	150	76
193-39-5	Indeno[1,2,3-cd]pyrene	980		150	76
90-12-0	1-Methylnaphthalene	87	J	150	71
91-57-6	2-Methylnaphthalene	110	J	150	76
91-20-3	Naphthalene	100	J	150	76
85-01-8	Phenanthrene	1000		150	55
129-00-0	Pyrene	2700		150	76

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah	Job No.: 680-106803-2
SDG No.: 680-106803-02	
Client Sample ID: CV097TT-CS18"	Lab Sample ID: 680-106803-29
Matrix: Solid	Lab File ID: 3YK1014.D
Analysis Method: 8270D_LL_PAH	Date Collected: 10/28/2014 15:10
Extract. Method: 3546	Date Extracted: 11/01/2014 13:48
Sample wt/vol: 30.01(g)	Date Analyzed: 11/10/2014 19:31
Con. Extract Vol.: 1(mL)	Dilution Factor: 20
Injection Volume: 2(uL)	Level: (low/med) Low
% Moisture: 14.3	GPC Cleanup:(Y/N) N
Analysis Batch No.: 357882	Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	190		160	77
208-96-8	Acenaphthylene	110	J	160	77
120-12-7	Anthracene	520		160	77
56-55-3	Benzo[a]anthracene	2500		160	77
50-32-8	Benzo[a]pyrene	1500		160	28
205-99-2	Benzo[b]fluoranthene	2300		160	77
191-24-2	Benzo[g,h,i]perylene	750		160	77
207-08-9	Benzo[k]fluoranthene	1000		160	47
218-01-9	Chrysene	2600		160	77
53-70-3	Dibenz(a,h)anthracene	330		160	77
206-44-0	Fluoranthene	5900		160	77
86-73-7	Fluorene	240		160	77
193-39-5	Indeno[1,2,3-cd]pyrene	820		160	77
90-12-0	1-Methylnaphthalene	81	J	160	72
91-57-6	2-Methylnaphthalene	88	J	160	77
91-20-3	Naphthalene	86	J	160	77
85-01-8	Phenanthrene	3000		160	56
129-00-0	Pyrene	3800		160	77

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-2

SDG No.: 680-106803-02

Client Sample ID: CV0971TT-CS24"

Lab Sample ID: 680-106803-30

Matrix: Solid

Lab File ID: 1KK0816.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/28/2014 15:25

Extract. Method: 3546

Date Extracted: 11/01/2014 13:48

Sample wt/vol: 30.01(g)

Date Analyzed: 11/08/2014 16:45

Con. Extract Vol.: 1(mL)

Dilution Factor: 10

Injection Volume: 1(uL)

Level: (low/med) Low

% Moisture: 13.7

GPC Cleanup:(Y/N) N

Analysis Batch No.: 357632

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	78	X UJ	78	38
208-96-8	Acenaphthylene	58	J	78	38
120-12-7	Anthracene	65	X J	78	38
56-55-3	Benzo[a]anthracene	500	J	78	38
50-32-8	Benzo[a]pyrene	500	J	78	14
205-99-2	Benzo[b]fluoranthene	800	J	78	38
191-24-2	Benzo[g,h,i]perylene	290		78	38
207-08-9	Benzo[k]fluoranthene	350	J	78	23
218-01-9	Chrysene	640	J	78	38
53-70-3	Dibenz(a,h)anthracene	110		78	38
206-44-0	Fluoranthene	830	J	78	38
86-73-7	Fluorene	78	X UJ	78	38
193-39-5	Indeno[1,2,3-cd]pyrene	200	J	78	38
90-12-0	1-Methylnaphthalene	90		78	36
91-57-6	2-Methylnaphthalene	99		78	38
91-20-3	Naphthalene	79	J	78	38
85-01-8	Phenanthrene	350	J	78	28
129-00-0	Pyrene	800	J	78	38

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-2

SDG No.: 680-106803-02

Client Sample ID: CV09710-CS6"

Lab Sample ID: 680-106803-31

Matrix: Solid

Lab File ID: 3YK1015.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/29/2014 11:15

Extract. Method: 3546

Date Extracted: 11/01/2014 13:48

Sample wt/vol: 30.01(g)

Date Analyzed: 11/10/2014 19:53

Con. Extract Vol.: 1(mL)

Dilution Factor: 20

Injection Volume: 2(uL)

Level: (low/med) Low

% Moisture: 13.2

GPC Cleanup:(Y/N) N

Analysis Batch No.: 357882

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	150	U	150	76
208-96-8	Acenaphthylene	150	U	150	76
120-12-7	Anthracene	150	U	150	76
56-55-3	Benzo[a]anthracene	350		150	76
50-32-8	Benzo[a]pyrene	290		150	28
205-99-2	Benzo[b]fluoranthene	470		150	76
191-24-2	Benzo[g,h,i]perylene	190		150	76
207-08-9	Benzo[k]fluoranthene	160		150	46
218-01-9	Chrysene	400		150	76
53-70-3	Dibenz(a,h)anthracene	150	U	150	76
206-44-0	Fluoranthene	600		150	76
86-73-7	Fluorene	150	U	150	76
193-39-5	Indeno[1,2,3-cd]pyrene	190		150	76
90-12-0	1-Methylnaphthalene	150	U	150	71
91-57-6	2-Methylnaphthalene	150	U	150	76
91-20-3	Naphthalene	150	U	150	76
85-01-8	Phenanthrene	240		150	55
129-00-0	Pyrene	510		150	76

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-2

SDG No.: 680-106803-02

Client Sample ID: CV09710-CS12"

Lab Sample ID: 680-106803-32

Matrix: Solid

Lab File ID: 3YK1016.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/29/2014 11:30

Extract. Method: 3546

Date Extracted: 11/01/2014 13:48

Sample wt/vol: 30.05(g)

Date Analyzed: 11/10/2014 20:15

Con. Extract Vol.: 1(mL)

Dilution Factor: 20

Injection Volume: 2(uL)

Level: (low/med) Low

% Moisture: 13.0

GPC Cleanup:(Y/N) N

Analysis Batch No.: 357882

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	150	U	150	76
208-96-8	Acenaphthylene	150	U	150	76
120-12-7	Anthracene	150	U	150	76
56-55-3	Benzo[a]anthracene	130	J	150	76
50-32-8	Benzo[a]pyrene	100	J	150	28
205-99-2	Benzo[b]fluoranthene	160		150	76
191-24-2	Benzo[g,h,i]perylene	150	U	150	76
207-08-9	Benzo[k]fluoranthene	51	J	150	46
218-01-9	Chrysene	160		150	76
53-70-3	Dibenz(a,h)anthracene	150	U	150	76
206-44-0	Fluoranthene	160		150	76
86-73-7	Fluorene	150	U	150	76
193-39-5	Indeno[1,2,3-cd]pyrene	150	U	150	76
90-12-0	1-Methylnaphthalene	150	U	150	71
91-57-6	2-Methylnaphthalene	150	U	150	76
91-20-3	Naphthalene	150	U	150	76
85-01-8	Phenanthrene	84	J	150	55
129-00-0	Pyrene	150		150	76

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-2

SDG No.: 680-106803-02

Client Sample ID: CV09710-CS18"

Lab Sample ID: 680-106803-33

Matrix: Solid

Lab File ID: 3YK1017.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/29/2014 11:45

Extract. Method: 3546

Date Extracted: 11/01/2014 13:48

Sample wt/vol: 30.02(g)

Date Analyzed: 11/10/2014 20:37

Con. Extract Vol.: 1(mL)

Dilution Factor: 20

Injection Volume: 2(uL)

Level: (low/med) Low

% Moisture: 14.3

GPC Cleanup:(Y/N) N

Analysis Batch No.: 357882

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	160	U	160	77
208-96-8	Acenaphthylene	160	U	160	77
120-12-7	Anthracene	160	U	160	77
56-55-3	Benzo[a]anthracene	160	U	160	77
50-32-8	Benzo[a]pyrene	56	J	160	28
205-99-2	Benzo[b]fluoranthene	89	J	160	77
191-24-2	Benzo[g,h,i]perylene	160	U	160	77
207-08-9	Benzo[k]fluoranthene	160	U	160	47
218-01-9	Chrysene	160	U	160	77
53-70-3	Dibenz(a,h)anthracene	160	U	160	77
206-44-0	Fluoranthene	160	U	160	77
86-73-7	Fluorene	160	U	160	77
193-39-5	Indeno[1,2,3-cd]pyrene	160	U	160	77
90-12-0	1-Methylnaphthalene	160	U	160	72
91-57-6	2-Methylnaphthalene	160	U	160	77
91-20-3	Naphthalene	160	U	160	77
85-01-8	Phenanthrene	160	U	160	56
129-00-0	Pyrene	160	U	160	77

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah	Job No.: 680-106803-2
SDG No.: 680-106803-02	
Client Sample ID: CV09710-CS24"	Lab Sample ID: 680-106803-34
Matrix: Solid	Lab File ID: 3YK1018.D
Analysis Method: 8270D_LL_PAH	Date Collected: 10/29/2014 12:00
Extract. Method: 3546	Date Extracted: 11/01/2014 13:48
Sample wt/vol: 30.01(g)	Date Analyzed: 11/10/2014 20:59
Con. Extract Vol.: 1(mL)	Dilution Factor: 20
Injection Volume: 2(uL)	Level: (low/med) Low
% Moisture: 15.0	GPC Cleanup:(Y/N) N
Analysis Batch No.: 357882	Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	160	U	160	78
208-96-8	Acenaphthylene	160	U	160	78
120-12-7	Anthracene	160	U	160	78
56-55-3	Benzo[a]anthracene	160	U	160	78
50-32-8	Benzo[a]pyrene	58	J	160	28
205-99-2	Benzo[b]fluoranthene	80	J	160	78
191-24-2	Benzo[g,h,i]perylene	160	U	160	78
207-08-9	Benzo[k]fluoranthene	53	J	160	47
218-01-9	Chrysene	160	U	160	78
53-70-3	Dibenz(a,h)anthracene	160	U	160	78
206-44-0	Fluoranthene	160	U	160	78
86-73-7	Fluorene	160	U	160	78
193-39-5	Indeno[1,2,3-cd]pyrene	160	U	160	78
90-12-0	1-Methylnaphthalene	160	U	160	73
91-57-6	2-Methylnaphthalene	160	U	160	78
91-20-3	Naphthalene	160	U	160	78
85-01-8	Phenanthrene	160	U	160	56
129-00-0	Pyrene	160	U	160	78

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-2

SDG No.: 680-106803-02

Client Sample ID: CV09710-CSD18"

Lab Sample ID: 680-106803-35

Matrix: Solid

Lab File ID: 3YK1019.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/29/2014 11:50

Extract. Method: 3546

Date Extracted: 11/01/2014 13:48

Sample wt/vol: 30.01(g)

Date Analyzed: 11/10/2014 21:22

Con. Extract Vol.: 1(mL)

Dilution Factor: 20

Injection Volume: 2(uL)

Level: (low/med) Low

% Moisture: 13.5

GPC Cleanup:(Y/N) N

Analysis Batch No.: 357882

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	150	U	150	76
208-96-8	Acenaphthylene	150	U	150	76
120-12-7	Anthracene	150	U	150	76
56-55-3	Benzo[a]anthracene	150	U	150	76
50-32-8	Benzo[a]pyrene	70	J	150	28
205-99-2	Benzo[b]fluoranthene	100	J	150	76
191-24-2	Benzo[g,h,i]perylene	150	U	150	76
207-08-9	Benzo[k]fluoranthene	63	J	150	46
218-01-9	Chrysene	150	U	150	76
53-70-3	Dibenz(a,h)anthracene	150	U	150	76
206-44-0	Fluoranthene	150	U	150	76
86-73-7	Fluorene	150	U	150	76
193-39-5	Indeno[1,2,3-cd]pyrene	150	U	150	76
90-12-0	1-Methylnaphthalene	150	U	150	72
91-57-6	2-Methylnaphthalene	150	U	150	76
91-20-3	Naphthalene	150	U	150	76
85-01-8	Phenanthrene	150	U	150	55
129-00-0	Pyrene	150	U	150	76

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-2

SDG No.: 680-106803-02

Client Sample ID: CV0971P-CS6"

Lab Sample ID: 680-106803-36

Matrix: Solid

Lab File ID: 3YK1020.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/29/2014 14:10

Extract. Method: 3546

Date Extracted: 11/01/2014 13:48

Sample wt/vol: 30.01(g)

Date Analyzed: 11/10/2014 21:44

Con. Extract Vol.: 1(mL)

Dilution Factor: 20

Injection Volume: 2(uL)

Level: (low/med) Low

% Moisture: 17.2

GPC Cleanup:(Y/N) N

Analysis Batch No.: 357882

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	210		160	80
208-96-8	Acenaphthylene	160	U	160	80
120-12-7	Anthracene	720		160	80
56-55-3	Benzo[a]anthracene	2600		160	80
50-32-8	Benzo[a]pyrene	2300		160	29
205-99-2	Benzo[b]fluoranthene	3500		160	80
191-24-2	Benzo[g,h,i]perylene	1300		160	80
207-08-9	Benzo[k]fluoranthene	1400		160	48
218-01-9	Chrysene	2800		160	80
53-70-3	Dibenz(a,h)anthracene	460		160	80
206-44-0	Fluoranthene	5600		160	80
86-73-7	Fluorene	210		160	80
193-39-5	Indeno[1,2,3-cd]pyrene	1200		160	80
90-12-0	1-Methylnaphthalene	120	J	160	75
91-57-6	2-Methylnaphthalene	150	J	160	80
91-20-3	Naphthalene	170		160	80
85-01-8	Phenanthrene	3000		160	58
129-00-0	Pyrene	4300		160	80

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-2

SDG No.: 680-106803-02

Client Sample ID: CV0971P-CS12"

Lab Sample ID: 680-106803-37

Matrix: Solid

Lab File ID: 3YK1021.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/29/2014 14:20

Extract. Method: 3546

Date Extracted: 11/01/2014 13:48

Sample wt/vol: 30.02(g)

Date Analyzed: 11/10/2014 22:06

Con. Extract Vol.: 1(mL)

Dilution Factor: 20

Injection Volume: 2(uL)

Level: (low/med) Low

% Moisture: 17.9

GPC Cleanup:(Y/N) N

Analysis Batch No.: 357882

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	160	U	160	80
208-96-8	Acenaphthylene	160	U	160	80
120-12-7	Anthracene	160	U	160	80
56-55-3	Benzo[a]anthracene	160	U	160	80
50-32-8	Benzo[a]pyrene	130	J	160	29
205-99-2	Benzo[b]fluoranthene	190		160	80
191-24-2	Benzo[g,h,i]perylene	85	J	160	80
207-08-9	Benzo[k]fluoranthene	85	J	160	49
218-01-9	Chrysene	150	J	160	80
53-70-3	Dibenz(a,h)anthracene	160	U	160	80
206-44-0	Fluoranthene	180		160	80
86-73-7	Fluorene	160	U	160	80
193-39-5	Indeno[1,2,3-cd]pyrene	160	U	160	80
90-12-0	1-Methylnaphthalene	160	U	160	76
91-57-6	2-Methylnaphthalene	160	U	160	80
91-20-3	Naphthalene	160	U	160	80
85-01-8	Phenanthrene	82	J	160	58
129-00-0	Pyrene	170		160	80

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-2

SDG No.: 680-106803-02

Client Sample ID: CV0971P-CS18"

Lab Sample ID: 680-106803-38

Matrix: Solid

Lab File ID: 3YK1022.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/29/2014 15:15

Extract. Method: 3546

Date Extracted: 11/01/2014 13:48

Sample wt/vol: 30.02(g)

Date Analyzed: 11/10/2014 22:28

Con. Extract Vol.: 1(mL)

Dilution Factor: 20

Injection Volume: 2(uL)

Level: (low/med) Low

% Moisture: 13.0

GPC Cleanup:(Y/N) N

Analysis Batch No.: 357882

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	150	U	150	76
208-96-8	Acenaphthylene	150	U	150	76
120-12-7	Anthracene	150	U	150	76
56-55-3	Benzo[a]anthracene	300		150	76
50-32-8	Benzo[a]pyrene	330		150	28
205-99-2	Benzo[b]fluoranthene	530		150	76
191-24-2	Benzo[g,h,i]perylene	210		150	76
207-08-9	Benzo[k]fluoranthene	260		150	46
218-01-9	Chrysene	400		150	76
53-70-3	Dibenz(a,h)anthracene	150	U	150	76
206-44-0	Fluoranthene	700		150	76
86-73-7	Fluorene	150	U	150	76
193-39-5	Indeno[1,2,3-cd]pyrene	170		150	76
90-12-0	1-Methylnaphthalene	150	U	150	71
91-57-6	2-Methylnaphthalene	150	U	150	76
91-20-3	Naphthalene	150	U	150	76
85-01-8	Phenanthrene	470		150	55
129-00-0	Pyrene	600		150	76

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah Job No.: 680-106803-2
SDG No.: 680-106803-02
Client Sample ID: CV0971P-CS24" Lab Sample ID: 680-106803-39
Matrix: Solid Lab File ID: 3YK1023.D
Analysis Method: 8270D_LL_PAH Date Collected: 10/29/2014 15:30
Extract. Method: 3546 Date Extracted: 11/01/2014 13:48
Sample wt/vol: 30.01(g) Date Analyzed: 11/10/2014 22:50
Con. Extract Vol.: 1(mL) Dilution Factor: 20
Injection Volume: 2(uL) Level: (low/med) Low
% Moisture: 14.1 GPC Cleanup:(Y/N) N
Analysis Batch No.: 357882 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	160	U	160	77
208-96-8	Acenaphthylene	160	U	160	77
120-12-7	Anthracene	80	J	160	77
56-55-3	Benzo[a]anthracene	420		160	77
50-32-8	Benzo[a]pyrene	380		160	28
205-99-2	Benzo[b]fluoranthene	630		160	77
191-24-2	Benzo[g,h,i]perylene	240		160	77
207-08-9	Benzo[k]fluoranthene	240		160	47
218-01-9	Chrysene	480		160	77
53-70-3	Dibenz(a,h)anthracene	160	U	160	77
206-44-0	Fluoranthene	830		160	77
86-73-7	Fluorene	160	U	160	77
193-39-5	Indeno[1,2,3-cd]pyrene	220		160	77
90-12-0	1-Methylnaphthalene	160	U	160	72
91-57-6	2-Methylnaphthalene	160	U	160	77
91-20-3	Naphthalene	160	U	160	77
85-01-8	Phenanthrene	480		160	56
129-00-0	Pyrene	710		160	77

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah

Job No.: 680-106803-2

SDG No.: 680-106803-02

Client Sample ID: CV0971AI-GS6"

Lab Sample ID: 680-106803-40

Matrix: Solid

Lab File ID: 3YK1024.D

Analysis Method: 8270D_LL_PAH

Date Collected: 10/29/2014 14:35

Extract. Method: 3546

Date Extracted: 11/01/2014 13:48

Sample wt/vol: 30.05(g)

Date Analyzed: 11/10/2014 23:13

Con. Extract Vol.: 1(mL)

Dilution Factor: 20

Injection Volume: 2(uL)

Level: (low/med) Low

% Moisture: 16.9

GPC Cleanup:(Y/N) N

Analysis Batch No.: 357882

Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	160	U	160	79
208-96-8	Acenaphthylene	160	U	160	79
120-12-7	Anthracene	98	J	160	79
56-55-3	Benzo[a]anthracene	600		160	79
50-32-8	Benzo[a]pyrene	530		160	29
205-99-2	Benzo[b]fluoranthene	790		160	79
191-24-2	Benzo[g,h,i]perylene	320		160	79
207-08-9	Benzo[k]fluoranthene	300		160	48
218-01-9	Chrysene	660		160	79
53-70-3	Dibenz(a,h)anthracene	110	J	160	79
206-44-0	Fluoranthene	1100		160	79
86-73-7	Fluorene	160	U	160	79
193-39-5	Indeno[1,2,3-cd]pyrene	280		160	79
90-12-0	1-Methylnaphthalene	160	U	160	74
91-57-6	2-Methylnaphthalene	160	U	160	79
91-20-3	Naphthalene	160	U	160	79
85-01-8	Phenanthrene	510		160	58
129-00-0	Pyrene	920		160	79

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131